

**DETAILED ACTION**

1. This action is responsive to the Applicant's response filed 10/02/09.

As indicated in Applicant's response, claims 1, 5, 8, 13-14, 16-19, 24 have been amended, claims 2-3, 6-7, 9-12, 15, 20-23, 25-33 canceled, and claims 34-42 added. Claims 1, 4-5, 8, 13-14, 16-19, 24, 34-42 are pending in the office action.

***EXAMINER'S AMENDMENT***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
3. Authorization for this examiner's amendment was given in a telephone interview with Doug Dallmann, Reg # 65,636 for Stephen Wight, Reg. # 37, 759, on 12/14 to 12/17/09.

The application has been amended as follows.

In the **CLAIMS**:

The claims have been amended according to the herein attached Amendment, namely, "Claims Amendment for Enabling Examiner's Amendment", provided as file "AmendM\_121809.pdf"

***EXAMINER'S STATEMENT OF REASONS FOR ALLOWANCE***

4. Claims 1, 8, 16, 19, 24, 36, and 40 are allowed.

The following is an examiner's statement of reasons for allowance.

The prior art taken separately or jointly does not suggest or teach the following features.

A method/product for testing a program, the testing or validating of the computer program using at least one of the values, sets of values and/or tuples from the one or more first data domains and the second data domain, implemented via configuring one or more first data domains corresponding to the one or more first data structure elements and a second data domain corresponding to the second data structure element, comprising:

(i) annotating the one or more first data structure elements and the second data structure element with information related to the purpose of domain configuration, wherein one or more first data structure elements and a second data domain corresponding to the second data structure element are derived from program constructs obtained from reflection of the program, the reflection comprising computer program constructs such as data types, data fields, functions, methods and/or parameters of the computer program;

the configuring comprising:

(ii) generating one or more structural language expressions for representing/evaluating the one or more first data structure elements and the second data structure element and for defining relationships among the one or more first data structure elements and the second data structure element in terms of type/method inheritance and types;

(iii) wherein generating the one or more structural language expressions includes generating at least one of:

if the second data structure element is a first data type comprising a plurality a sub-types, at least one structural language expression *denoting a union* of one or more of the one or more first data domains corresponding to the one or more first data structure elements that are sub-types of the first data type;

if the second data structure element is a method, at least one structural language expression denoting inheritance relationships between types and subtypes of the second data structure element and types and subtypes of the one or more first data structure elements wherein the one or more first data structure elements represent parameters of another method described in the one or more first data domains

at least one structural language expression comprising a *Cartesian product* as an invocable method to cross-relate the second data structure element with one or more data domains corresponding to the one or more first data structure elements;  
and

(iv) compiling the annotated one or more first data structure elements and the second data structure element to produce values, sets of values and/or tuples of the one or more first data domains and the second data domain; (i) (ii) (iii) and (iv) as recited in claims 1 and 19.

**Davidson et al**, USPN: 6,083,276, (in view of Java 2 Platform, Java2SE) teach script structure tags used for testing range based on parameters defined in Descriptor structure or via BeanInfo APIs (including standard Introspect method for captured reflection), but does not teach or suggest *annotating* --as in (i) -program constructs (or program data structure elements for data domain configuration) obtained from a reflection (of the program) with information related to the purpose for configuring data domain; nor does Davidson/Java2SE in combination teach or suggest compiling said annotated data structure elements as in (iv) into value sets, tuples for testing purpose, and specific ways for configuring via using structured language including evaluating or denoting form evaluating/expressing relationship between first and second data

element as in (ii) in terms type/method inheritance and types, including *union denotation*, *method type/subtype inheritance* and invocable *Cartesian product* as in (iii) .

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 ( for non-official correspondence - please consult Examiner before using) or 571-273-8300 ( for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

December 20, 2009